

## ECO137 Quiz 4 Dec. 8. 2017

ID

Name:

1. For  $f(x) = \sqrt{20 + x}$ ,

(a) Find Quadratic Approximation about  $x= 1$

(b) For  $x = 1.1$ , derive (i) Actual value and (ii) Quadratic Approximated value. Report up to 5 digits after the decimal point (0.00001).

2. For  $P = \sqrt{5000/Q}$ , find price elasticity of demand.

3. Find  $\lim_{x \rightarrow 0} \frac{e^{5xt} - 1 - 5xt}{x^2}$ .